UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,385	02/16/2001	Charles J. Jacobus	CYB-07102/03	2386

7590 01/13/2006	EXAMINER
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ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 01/13/2006

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/785,385
Filing Date: February 16, 2001
Appellant(s): JACOBUS, CHARLES J.

John G. Posa, Reg. No. 37424
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/13/2005 appealing from the Office action mailed

5/4/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,138,144	DESIMONE ET AL.	10-2000
5,841,980	WATERS ET AL.	11-1998
6,015,348	LAMBRIGHT ET AL.	1-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(e) as being anticipated by DeSimone

et al. (U.S. Patent Number 6,138,144), hereinafter referred to as DeSimone.

DeSimone has disclosed:

- <Claim 1>

  A distributed network computing environment, comprising: a plurality of clients
  communicating within a multicast cloud using content-specific messages to implement a
  groupware application (column 4, lines 47-54); and one or more network routing modules
  or router-embedded applets operative to distribute the messages based upon the content in
  addition to normal packet-routing (column 4, lines 59-61 and column 5, lines 24-41).

- <Claim 3>

  The environment of claim 1, wherein the application is a client-selectable and
  controllable data service associated with the distribution of audio, video, or other digital
  signal streams (column 1, lines 26-34).

- <Claim 4>

  The environment of claim 1, wherein the clients enter, leave, and interact with the cloud
  through a lobby manager (column 5, lines 5-23).

- <Claim 5>

  The environment of claim 4, wherein the lobby manager is further operative to validate
  the application in terms of compatibility and download data to correct for deficiencies
  (column 7, line 59 through column 8, line 12).

- <Claim 6>

  The environment of claim 4, wherein the lobby manager is further operative to
  simultaneously support multiple clouds through multicast or replicated unicast protocols
  (column 3, lines 27-36).

Since all the limitations of the invention as set forth in claims 1 and 3-6 were disclosed by

DeSimone, claims 1 and 3-6 are rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-9, 11, and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

DeSimone, as applied above, in view of Waters et al. (U.S. Patent Number 5,841,980),

hereinafter referred to as Waters.

DeSimone disclosed a multicast capable IP network maintaining client terminals on a

multimedia conference. In an analogous art, Waters disclosed a distributed communication

network for multi-user applications. Just as with DeSimone's invention, Waters discussed the

benefits of a multicast system and the usage of the Asynchronous Transfer Mode. See column 1,

lines 44-62.

Concerning claim 11, DeSimone did not explicitly state that his system could utilize

traffic adjustment means to reduce communications between client terminals and the cloud.

However, Waters focuses on reducing the bandwidth loading of a multi-user application

operating over a communication network. See column 5, lines 6-32. Waters's use of culling

rules in this manner has been admitted by the applicant. See the applicant's specification, page

7, last paragraph. Since the inventions encompass the same field of endeavor, it would have

been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify

the system provided by DeSimone by adding the ability to implement message culling for

reduced client-cloud communications as provided by Waters. This would make sense because it

would provide a system such as DeSimone's with a more optimal interaction among its multiple

users. See Waters, column 4, line 65 through column 5, line 3.

Concerning claim 17, DeSimone did not explicitly state the use of host platforms.

However, Waters's system does utilize host computers. Since the inventions encompass the

same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time

of the applicant's invention to modify the system provided by DeSimone by adding the use of

host platforms as provided by Waters. This would make sense because it would allow for greater

flexibility in management of the client terminals.

Thereby the combination of DeSimone and Waters discloses:

- <Claim 7>

   The environment of claim 1, wherein the routing modules implement application-specific

   message culling to reduce client-cloud communications (Waters, column 9, lines 59-63).

- <Claim 8>

   The environment of claim 7, wherein the message culling includes message omission,

   rerouting, and other quality-of-service modifications (Waters, column 10, lines 36-50).

- <Claim 9>

   The environment of claim 7, wherein the application communicates internal state changes

   into the cloud through an API (DeSimone, column 2, lines 15-20).

- \<Claim 11\>

  A distributed network computing environment, comprising: a network-enabled client

  application (DeSimone, column 4, lines 47-54); at least one lobby manager that facilitates

  communications between the client application and a federation (DeSimone, column 5,

  lines 5-23); and one or more network routing modules or router-embedded applets that

  implement application-specific message culling to reduce the communications with the

  federation (Waters, column 9, lines 59-63).

- \<Claim 14\>

  The environment of claim 11, wherein the application is a client selectable and

  controllable data service (DeSimone, column 1, lines 26-34).

- \<Claim 15\>

  The environment of claim 14, wherein the data service includes audio, video, or other

  type of digital signal feed (DeSimone, column 1, lines 26-34).

- \<Claim 16\>

  The environment of claim 11, wherein the routing modules further support a point-to-

  multipoint distributed communications model between clients (DeSimone, column 5,

  lines 52-57).

- \<Claim 17\>

  The environment of claim 11, wherein: at least some of the client applications run on host

  platforms (Waters, column 17, lines 63-67); and the routing modules further support

  conventional internet packet routing among the hosts (Waters, column 19, lines 7-9).

- <Claim 18>

  The environment of claim 11, wherein the routing modules further support one or more

  conventional multicast protocols (DeSimone, column 6, lines 26-29).

- <Claim 19>

  The environment of claim 11, wherein the application communicates internal state

  changes into the federation through an API (DeSimone, column 2, lines 15-20).

- <Claim 20>

  The environment of claim 11, wherein the message culling includes message omission,

  rerouting, and other quality-of-service modifications (Waters, column 10, lines 36-50).

- <Claim 21>

  The environment of claim 11, wherein the lobby manager is further operative to validate

  the client application for compatibility with the federation and download data to correct

  for deficiencies (DeSimone, column 7, line 59 through column 8, line 12).

- <Claim 22>

  The environment of claim 11, wherein the lobby manager is further operative to

  simultaneous process multiple federations (DeSimone, column 3, lines 27-36).

- <Claim 23>

  The environment of claim 22, wherein the federations communicate through multicast or

  replicated unicast protocols (DeSimone, column 3, lines 27-36).

Since the combination of DeSimone and Waters discloses all of the above limitations, claims 7-

9, 11, and 14-23 are rejected.

Claims 2, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

DeSimone in view of Waters, as applied above, further in view of Lambright et al. (U.S. Patent

Number 6,015,348), hereinafter referred to as Lambright.

The combination of DeSimone and Waters disclosed a multicast capable IP network

maintaining client terminals on a multimedia conference where the bandwidth loading of a multi-

user application is reduced. In an analogous art, Lambright disclosed a distributed

communication network for implementing a multi-player computer game. Just as with the

inventions of DeSimone and Waters, Lambright focuses on a communication network for multi-

user applications.

Concerning claims 2 and 10, the combination of DeSimone and Waters did not explicitly

state the use of an application which was a simulation or game, or a system which would involve

thousands of participants. However, Lambright does state that his multi-user application is a

game and that it can be implemented for thousands of participants. In these areas Lambright's

relation to the present application has been admitted by the applicant. See the applicant's

specification, page 5, first paragraph. Further, since the inventions of DeSimone, Waters, and

Lambright encompass the same field of endeavor, it would have been obvious to one of ordinary

skill in the art at the time of the applicant's invention to modify the combination of DeSimone

and Waters by adding the use of an application which was a simulation or game and the ability to

reach thousands of participants as provided by Lambright. This would make sense because it

would be an ideal utilization of the network for a different purpose, specifically online gaming.

Thereby, the combination of DeSimone, Waters, and Lambright discloses:

- <Claim 2>

    The environment of claim 1, wherein the application is a distributed simulation or game
    (Lambright, column 1, lines 14-21).

- <Claim 10>

    The environment of claim 1, wherein the application is a massive groupware application
    involving thousands of world-wide participants (Lambright, column 1, line 66 through
    column 2, line 2).

- <Claim 12>

    The environment of claim 11, wherein the application is a distributed simulation
    (Lambright, column 1, lines 27-33).

- <Claim 13>

    The environment of claim 11, wherein the application is a game (Lambright, column 1,
    lines 14-21).

Since the combination of DeSimone, Waters, and Lambright discloses all of the above

limitations, claims 2, 10, 12, and 13 are rejected.

(10) Response to Argument

In the brief, the applicant has argued:

- <Argument 1>

    DeSimone does not disclose all of the features of claim 1, namely distributing messages
    based upon message content.

- <Argument 2>

  There exists no motivation to combine DeSimone and Waters.

- <Argument 3>

  DeSimone and Waters are not analogous art.

- <Argument 4>

  The combination of DeSimone and Waters does not disclose all of the features of claim

  11, namely implementing application-specific message culling.

- <Argument 5>

  The combination of DeSimone, Waters, and Lambright does not disclose all of the

  features of claims 2, 10, 12, and 13 because Lambright uses fixed zones.

In response to argument 1, DeSimone does disclose the features as recited in claim 1.

Regarding network routing modules operative to distribute the messages based upon content, it

can be seen that DeSimone's system discloses this feature by referring to column 5, lines 24-41.

These lines clearly show that messages can be received based on a media type. The applicant

has stated several specific ways in which his invention may possibly be distinguished over

DeSimone, but these distinctions are not limitations of claim 1. For example the applicant

specifically describes what he means by application-specific code and states that the invention

contains no multicast receive address list as in DeSimone. The applicant is reminded that

although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.

1993). Although DeSimone uses a MRAL in order to determine which messages to distribute

based on media type (or message content), his still discloses all of the features as recited in claim 1.

Addressing the applicant's remarks in support of argument 1 in greater detail, it can further be seen that the applicant appears to be arguing limitations not present in the claim. The applicant states that "according to the present invention, messages are routed based on logic in the FedHost – i.e. the router itself, not based on client logic or preference." This is not a limitation of the claim. Claim 1 states "one or more network routing modules" only, which limitation is met by any of the various functions in DeSimone's system that control multicast routing and mapping (MARS server 126, DS 106, MR 113 and 114, etc.) For example, the directory server (DS 106) is a network routing module in that it maintains a list of available addresses and ports for use in the network conferences which effectuates routing during the conference. Specifically, the directory server assigns a unique multicast IP address and port number to each media type of each client. In addition to the previously cited lines, see DeSimone, column 5, lines 5-23.

The applicant states that "in applicant's system, some or all packets are actually NOT routed based on router logic which is keyed by packet content." This is not a limitation of the claim. In fact, this is in direct conflict with the language of the claim as claim 1 states distributing messages "based upon content in addition to normal packet-routing."

The applicant states that "there is no MRAL in our routers unless implemented in an application specific way by applet logic." This is not a limitation of the claim. Although, DeSimone uses an MRAL, his disclosure still meets the claimed limitations as the MRAL allows

for messages sent by the system's routing functionality to be received by only certain clients

based on the media type (or message content).

The applicant has further described the present invention by stating that "Each

broadcaster would 'think' it was sending to all clients, and all clients would 'think' that they are

getting everything, but the routing fabric would not route all data sent to all clients receiving

based on logic that is internal to the router and is based on the requirements of the application

generating the traffic (i.e. this logic is inserted into the routers by the application developer)."

This is not a limitation of the claim. Claim 1 does not mention "routing fabric," "logic that is

internal to the router," or "requirements of the application generating the traffic" in any way, but

only states "one or more network routing modules" as addressed above.

The applicant has also stated that his routers "must know about network optimization."

There exists no mention of "network optimization" in claim 1.

For further detail, also see DeSimone, steps 306 and 307 of figure 3 which describe a

client's activity in a conference. These steps are addressed at column 8, lines 4-19. Here the

functionality of the DS and the MRAL is further described, as well as use of the media type in

effectuating routing between clients.

In response to argument 2 that there is no suggestion to combine DeSimone and Waters,

the examiner recognizes that obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir.

1992). In this case, it is believed that optimizing interaction among users of a multi-user

application that operates across a large-scale network is sufficient motivation to combine the

references. A specific finding in the prior art that teaches this suggestion to combine was

previously cited. More specifically, this citation, Waters, column 4, line 65 through column 5,

line 3, states that "there is a need for a system for optimizing interaction among multi-users

across a communication network." Both the systems of DeSimone and Waters represent multi-

user communication networks and there is clearly shown a need in the art for new ways in which

to optimize interaction among users in these networks.

In response to argument 3 that DeSimone and Waters are nonanalogous art, it has been

held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be

reasonably pertinent to the particular problem with which the applicant was concerned, in order

to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977

F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is believed that both the systems of

DeSimone and Waters are distributed communication networks that utilize multi-user

applications and thus are analogous art. The applicant states that the system of Waters would be

of no benefit to DeSimone because DeSimone is directed to optimizing multicast

communications over non-IP (ATM) networks. This statement is clearly incorrect. First,

DeSimone is not directed to non-IP networks, but to an IP-over-ATM interface. Both the

systems of DeSimone and Waters utilize multicast protocols. Second, Waters discusses the use

of a network backbone in his system and gives an example of backbones where ATM is often

used. See Waters, column 1, lines 44-62, as previously cited.

In response to argument 4, the combination of DeSimone and Waters does disclose the

features as recited in claim 11. Regarding application-specific message culling, it can be seen

that Water's system discloses this feature by referring to column 9, lines 59-63, as previously

cited. These lines show the facilitation of transmission of only certain data in application

environments. Furthermore, Waters' use of application-specific culling rules was admitted by

the applicant at the last paragraph of page 7 of the specification. The applicant goes on to state a

more specific description of "culling rules" in the remarks, but this description is not included in

the limitations of claim 11. The applicant is reminded that although the claims are interpreted in

light of the specification, limitations from the specification are not read into the claims. See *In

re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to argument 5, it is maintained that the combination of DeSimone, Waters,

and Lambright does disclose all of the features of claims 2, 10, 12, and 13. It is unclear why the

applicant believes that Lambright's use of fixed zones has any bearing on these claims. Claims

2, 10, 12, and 13 refer to the application as a massive groupware application or as a distributed

simulation or game. Claims 2, 10, 12, 13 make no reference to using or not using zones in the

applicant's invention. The applicant has not addressed the line citations relating to these claims

in the examiner's rejection. Thus, it is maintained that argument 5 does not clearly point out the

patentable novelty which the applicant thinks the claims present in view of the state of the art

disclosed by the references cited.

Regarding the applicant's statement that "there is no evidence from the prior art that

suggests the proposed combination," the applicant is directed to the comments in response to

argument 2 which represent sufficient motivation for combining DeSimone, Waters, and

Lambright as well. Furthermore, the applicant has admitted in the remarks that Lambright's

system is a variation on the system of Waters.

For the above reasons, it is believed that the rejections should be sustained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

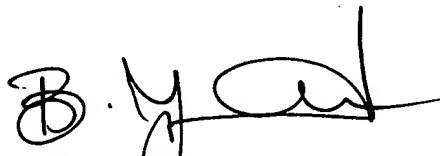Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

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Dated: January 5, 2006

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